

Attorney Docket No: IDF 2393 (4000-12700)

Patent

REMARKS

This application has been carefully considered in connection with the Examiner's Office Action dated February 10, 2006. Reconsideration and allowance are respectfully requested in view of the following.

Specification

The Office Action suggested that the use of the trademark "Oracle" in the specification be capitalized wherever it appears and be accompanied by the generic terminology. By the above amendments to the specification, Applicant has amended the specification as suggested by the Office Action. Applicant respectfully submits that these changes are asserted not to introduce new matter, and their entry is requested.

Claim Objections

Claims 9 were objected to because two claims were numbered 9. Applicant would like to thank the Examiner for noting this typographical error. By the above amendments, Applicant has corrected the numbering of the claims. Applicant respectfully submits that these changes do not introduce new matter, and their entry is requested. Accordingly, Applicant respectfully requests withdrawal of this objection.

Response to Rejections under Section 101

In the Office Action dated February 10, 2006, original Claims 1-12 and 19-28 (renumbered 1-13 and 20-29, respectively, by the above amendment to the claims) were rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter.

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By the above amendments, Applicant has amended renumbered independent Claims 1, 20, and 24 to recite “operable on one or computer systems” in their respective preambles. The support for this amendment can be found, for example, in Figures 4-7, along with their respective descriptions in Paragraphs [0057] – [0060]. Accordingly, Applicant respectfully submits that Claims 1-12 and 19-28 are directed towards statutory subject matter and requests withdrawal of this rejection.

Response to Rejections under Section 102

In the Office Action dated February 10, 2006, original Claims 1-10, 12-25, and 27-28 (renumbered 1-11, 13-26, and 28-29, respectively, by the above amendment to the claims) were rejected under 35 USC § 102(b) as being anticipated by “Mid-Tier Caching: The TimesTen Approach”.

Claim 1

Amended Claim 1 now recites, “an engine operable to monitor the in-memory database system and apply the rule to the cached data outside of the application.”

The Office Action suggested that TIMESTEN discloses such an engine. However, TIMESTEN is a commercial off-the-shelf (COTS) in-memory database management system (IMDBMS) that provides the ability to automatically propagate updates from the cache to the back-end database, as well as the ability to automatically propagate updates from the back-end database to the cache. (Page 591, second column, first full paragraph.) By contrast, the present application discloses an engine that applies the application-specific rules to cached data outside of the applications, thereby eliminating the inefficiencies associated with these rules being

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implemented by the applications.

An IMDBMS and an application have very different roles with regard to cached data. This distinction is stated, for example, in Paragraphs [0020] and [0021] of the present application as follows:

[0020] IMDBMSs store data in memory, such as in random access memory but may also include disk memory in some cases or for some portions of the data, which may be referred to as caching the data. It is the role of the IMDBMS software to keep cached data synchronized across multiple application platforms so that all application servers using the cached data see the same data values as the data is accessed. The IMDBMS software, however, may not know or be operable to implement the specific requirements of enterprise applications for refreshing or otherwise managing cached data or removing data from cache.

[0021] For example, a customer data object may be of use to an application for a specific period of time, such as 30 minutes or less. In some instances, it is efficient to retain the customer data object in cache, but the application should remove the customer data object from cache after this 30 minute period expires. It is inefficient and perhaps impossible in some instances, however, for the application to implement these application specific data cache management rules.

Therefore, the IMDBMS of TIMESTEN does not address the problem of the inefficiencies associated with application-specific rules being implemented by the applications themselves, a problem that is solved by the present application. Paragraph [0039] of the present application, for example, states:

[0039] ... the second rule engine 28 identifies cached data with the associated rule type. After identifying the cached data and the rule type, the second rule engine 28 applies the rule to the related data, thereby implementing the application 11a specific rule outside of the IMDBMS 20. It can be seen that this functionality provides implementation of application 11a specific rules without the inefficiencies associated with these rules being implemented by the application 11a. In addition, the present embodiment provides cache management of data functionality not provided by the IMDBMS 20, which promotes greater efficiency throughout the system.

To further emphasize the fact that the present application teaches implementing the rules

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outside of the application, Applicant has amended this element of Claim 1 to recite “outside of the application”.

As established by Paragraph [0039] above, the system and method of the present application are designed to be used in conjunction with IMDBMS COTS packages, such as TIMESTEN. Paragraph [0036] of the present application, for example, states, “Examples of IMDBMS COTS packages that are compatible with the present disclosure are TIMESTEN and VERSANT.”

Accordingly, Applicant respectfully submits that TIMESTEN does not teach or suggest an engine operable to monitor the in-memory database system and apply the rule to the cached data outside of the application.

Claim 14 (originally Claim 13)

Independent Claim 14 also recites, “an engine operable to monitor the in-memory database system and apply the rule to the cached data outside of the application.”

Like Claim 1, Claim 14 has also been amended to further clarify the fact that the rule is applied to the cache data outside of the application. As stated above, TIMESTEN is an IMDBMS COTS package and, therefore, does not address the problem of the inefficiencies associated with application-specific rules being implemented by the applications themselves.

Accordingly, Applicant respectfully submits that TIMESTEN does not teach or suggest an engine operable to monitor the in-memory database system and apply the rule to the cached data outside of the application.

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Claim 20 (originally Claim 19)

Independent Claim 20 recites, “applying the rule to the data based on the rule component outside of the application.”

Like Claim 1, Claim 20 has also been amended to further clarify the fact that the rule is applied to the cache data outside of the application. As stated above, TIMESTEN is an IMDBMS COTS package and, therefore, does not address the problem of the inefficiencies associated with application-specific rules being implemented by the applications themselves.

Accordingly, Applicant respectfully submits that TIMESTEN does not teach or suggest applying the rule to the data based on the rule component outside of the application.

Claim 24 (originally Claim 23)

Independent Claim 24 also recites, “an engine operable to receive at least the component of the rule from the wrapper and apply the rule to cached data outside of the application.”

Like Claim 1, Claim 24 has also been amended to further clarify the fact that the rule is applied to the cache data outside of the application. Again, as stated above, TIMESTEN is an IMDBMS COTS package and, therefore, does not address the problem of the inefficiencies associated with application-specific rules being implemented by the applications themselves.

Accordingly, Applicant respectfully submits that TIMESTEN does not teach or suggest an engine operable to receive at least the component of the rule from the wrapper and apply the rule to cached data outside of the application.

Original dependent Claims 2-10, 12, 14-18, 20-22, 24-25, and 27-28 (renumbered 2-11, 13, 15-19, 21-23, 25-26, and 28-29 by the above amendment to the claims) depend directly or

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indirectly from renumbered independent Claims 1, 14, 20, and 24 and incorporate all of the limitations thereof. Accordingly, for the reasons established above, Applicant respectfully submits that original Claims 1-10, 12-25, and 27-28 (renumbered 1-11, 13-26, and 28-29, respectively, by the above amendment to the claims) are not obvious in light of the suggested combination and respectfully request allowance of these claims.

Response to Rejections under Section 103

In the Office Action dated February 10, 2006, original Claim 11 was rejected under 35 USC § 103(a) as being unpatentable over “Mid-Tier Caching: The TimesTen Approach”.

Original dependent Claim 11 (renumbered Claim 12 by the above amendments) depends directly from independent Claim 1 and incorporates all of the limitations thereof. Accordingly, for the reasons established above, Applicant respectfully submits that original Claim 11 is not obvious in light of the suggested combination and respectfully requests allowance of this claim.

In the Office Action dated February 10, 2006, Claim 26 was rejected under 35 USC § 103(a) as being unpatentable over “Mid-Tier Caching: The TimesTen Approach” in view of Ricketts et al. (U.S. Patent 6,901,383).

Original dependent Claim 26 (renumbered Claim 27 by the above amendments) depends directly from original independent Claim 23 (renumbered Claim 24 by the above amendments) and incorporates all of the limitations thereof. Accordingly, for the reasons established above, Applicant respectfully submits that original Claim 26 is not obvious in light of the suggested combination and respectfully requests allowance of this claim.

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Conclusion

Applicant respectfully submits that the present application is in condition for allowance for the reasons stated above. If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, he is encouraged to telephone the undersigned at (972) 731-2288.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Respectfully submitted,



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